REMARKS/ARGUMENTS

Claims 1-4, 6, 7, 9-19, 21-23 stand canceled.

Claims 5, 8, 20 have been amended.

The amendment leaves claims 5, 8, 20 pending.

Applicant notes with appreciation the specificity of the Examiner in applying the references in the rejections, including Fig. A attached to the Office Action and providing an exploded view of the applied reference including reference characters supplied by the Examiner. This has facilitated the present response and enabled applicant to further focus his claimed invention.

Claim 5 has been rejected under 35 U.S.C. §103(a) over Martin U.S. Patent 4,378,983 in view of Hess U.S. Patent 3,921,754. Reconsideration in view of the following remarks is respectfully requested.

For the Examiner's convenience, claim 5 is set forth below with supporting disclosure reference numerals inserted in parenthesis to facilitate review.

> *5. A serviceable muffler (20) comprising a muffler body (26) for containing an element (28) requiring servicing, said body (26) having an open end (30) allowing access to said element (28) for removal and replacement of said element (28) through said open end (30), an end plate (34) closing said body (26) at said open end (30), at least one of said end plate (34) and said open end (30) of said body (26) having a flared rounded portion (40, 42), a clamp (36) releasably clamping said end plate (34) to said open end (30) to close said body (26) and being releasable to permit removal of said end plate (34) from said open end (30) of said body (26) for gaining access to said element (28), wherein each of said end plate (34) and said open end (30) of*

> *said body (26) has a flared rounded portion (40, 42), and further comprising in combination an apertured flange (44) having an outer border with a flared rounded portion (46) complemental to the flared rounded portion (40, 42) of each of said end plate (34) and said open end (30) of said body (26), said apertured flange (44) having an inner border defined by an aperture (48) therethrough, wherein said element (28) in said body (26) is removed and replaced through said aperture (48), wherein said body (26) extends axially along an axis (50) between first and second axially distally opposite axial ends (52, 54), said first axial end (52) being said open end (30), and wherein said flared rounded portions (40, 42, 46) of said end plate (34) and of said open end (30) of said body (26) and of said apertured flange (44) are all axially aligned, and wherein said flared rounded portion (46) of said apertured flange (44) is located axially between and in engagement with each of said flared rounded portion (40) of said end plate (34) and said flared rounded portion (42) of said open end (30) of said body (26).*

Claim 5 requires that the flared rounded portion (46, Fig. 10) of the apertured flange (44) be located axially between and in engagement with each of the flared rounded portion (40) of the end plate (34) and the flared rounded portion (42) of the open end (30) of the body (26). In contrast, even if Martin '983 and Hess '754 are combined, the resultant combination still does not yield such defined subject matter. In Hess '754, there is no end plate such as 34 in present Fig. 10. In Martin '983, there is no apertured flange such as 44 in present Fig. 10. If the flared rounded locating structure of Hess '754, Fig. 7, at outer wall 73, also as shown at 1073 in the Examiner's annotated Fig. A, is substituted into Martin '983, the result still does not yield the defined combination because Martin '983 relies upon elastomeric sealing ring 84, Fig. 10, Col. 3, lines 39-40, and hence the following requirement of claim 5 is not met:

> *said flared rounded portion (46) of said apertured flange (44) is located axially between and engaging each of said flared rounded portion (40) of said end plate (34) and said flared rounded portion (42) of said open end (30) of said body (26).*

Consideration and allowance of claim 5 is respectfully requested.

Claim 8 has been rejected under 35 U.S.C. §103(a) over Martin '983 in view of Hess '754. Reconsideration in view of the following remarks is respectfully requested.

For the Examiner's convenience, claim 8 is set forth below with supporting disclosure reference numerals inserted in parenthesis to facilitate review.

> *8. A serviceable muffler (20) comprising a muffler body (26) for containing an element (28) requiring servicing, said body (26) having an open end (30) allowing access to said element (28) for removal and replacement of said element (28) through said open end (30), an end plate (34) closing said body (26) at said open end (30), at least one of said end plate (34) and said open end (30) of said body (26) having a flared rounded portion (40, 42), a clamp (36) releasably clamping said end plate (34) to said open end (30) to close said body (26) and being releasable to permit removal of said end plate (34) from said open end (30) of said body (26) for gaining access to said element(28), wherein each of said end plate (34) and said open end (30) of said body (26) has a flared rounded portion (40, 42), and*

further comprising in combination an apertured flange (44) having an outer border with a flared rounded portion (46) complemental to the flared rounded portion (40, 42) of each of said end plate (34) and said open end (30) of said body (26), said apertured flange (44) having an inner border defined by an aperture (48) therethrough, wherein said element (28) in said body (26) is removed and replaced through said aperture (48), wherein said body (26) extends axially along an axis (50) between first and second axially distally opposite axial ends (52, 54), said first axial end (52) being said open end (30), and wherein said flared rounded portions (40, 42, 46) of said end plate (34) and of said open end (30) of said body (26) and of said apertured flange (44) are all axially aligned, and wherein said flared rounded portion (46) of said apertured flange (44) is located axially between said flared rounded portion (40) of said end plate (34) and said flared rounded portion (42) of said open end (30) of said body (26), wherein said flared rounded portion (46) of said apertured flange (44) has a first arcuate surface (56) facing in a first axial direction (rightwardly in Figs. 9, 10) away from said second axial end (54) of said body (26), and has a second arcuate surface (58) facing in a second axial direction (leftwardly in Figs. 9, 10) toward said second axial end (54) of said body (26), said second axial direction being opposite to said first axial direction, and wherein said first arcuate surface (56) of said flared rounded portion (46) of said apertured flange (44) engages said flared rounded portion (40) of said end plate (34), and said second arcuate surface (58) of said flared rounded portion (46) of said apertured *flange (44) engages said flared rounded portion (42) of said open end (30) of said body (26), wherein said open end (30) of said body (26) has a first section (60) extending axially along said first axial direction (rightwardly in Figs. 9, 10) to said flared rounded portion (42) of said open end (30) of said body (26), and has a second section (62) extending axially along said second axial direction (leftwardly in Figs. 9, 10) from said flared rounded portion (42) of said open end (30) of said body (26), said second section (62) having a terminating end (64) spaced laterally outwardly of said first section (60) by a pocket (66) of given lateral width, wherein said flared rounded portion (46) of said apertured flange (44) is a first rounded portion of said apertured flange (44), and wherein said apertured flange (44) has a second rounded portion (68), and wherein said apertured flange (44) has a first section (70) extending axially along said first axial direction (rightwardly in Figs. 9, 10) to said first rounded portion (46)of said apertured flange (44), and has a second section (72) extending axially along said second axial direction (leftwardly in Figs. 9, 10) from said first rounded portion (46) of said apertured flange (44) to said second rounded portion (68) of said apertured flange (44), and has a third section (74) extending axially along said first axial direction (rightwardly in Figs. 9, 10) from said second rounded portion (68) of said apertured flange (44), and wherein said third section (74) of said apertured flange (44) extends axially into said pocket (66), wherein said second rounded portion (68) of said apertured flange (44) has a first arcuate surface (76) facing axially in said first axial direction (rightwardly in Figs.*

> *9, 10) toward said terminating end (64) of said second section (62) of said open end (30) of said body (26), and has a second arcuate surface (78) facing axially in said second axial direction (leftwardly in Figs. 9, 10) and engaged by said clamp (36), and wherein said rounded portion (40) of said end plate (34) has a first arcuate surface (80) facing axially(50) in said first axial direction (rightwardly in Fig. 10), and has a second arcuate surface (82) facing axially in said second axial direction (leftwardly in Fig. 10), said second arcuate surface (82) of said rounded portion (40) of said end plate (34) engaging said first arcuate surface (56) of said first rounded portion (46) of said apertured flange (44), said first arcuate surface (80) of said rounded portion (40) of said end plate (34) being engaged by said clamp (36), said clamp (36) having first and second engagement surfaces (84, 86), said first engagement surface (84) facing axially in said first axial direction (rightwardly in Fig. 10) and engaging said second arcuate surface (78) of said second rounded portion (68) of said apertured flange (44), said second engagement surface (86) facing axially in said second axial direction (leftwardly in Fig. 10) and engaging said first arcuate surface (80) of said rounded portion (40) of said end plate (34).*

Claim 8 requires that the rounded portion (40, Fig. 10) of the end plate (34) have a first arcuate surface (80) facing axially (50) in the noted first axial direction (rightwardly in Fig. 10). Hess '754 has no end plate, and hence cannot satisfy this limitation. Martin '983 has a cover 14, Fig. 10, but does not satisfy such limitation, nor can it satisfy such limitation because of interfering member 82 adjacent thereto and preventing the requisite alignment in combination with the defined facing direction.

Claim 8 further requires that the rounded portion (40, Fig. 10) of the end plate (34) have a second arcuate surface (82) facing axially in the noted second axial direction (leftwardly in Fig. 10). This limitation is likewise not satisfied by the references even if combined, for the reasons noted above.

Claim 8 further requires that the defined second arcuate surface (82, Fig. 10) of the rounded portion (40) of the end plate (34) engage the defined first arcuate surface (56) of the first rounded portion (46) of the apertured flange (44). In contrast, Hess '754 has no end plate. Further in contrast, Martin '983 has no apertured flange. Furthermore, cover 14 in Martin '983 does not engage shoulder 81 at bead 80, Fig. 10.

Consideration and allowance of claim 8 is respectfully requested.

Claim 20 has been rejected under 35 U.S.C. §103(a) over Martin '983 in view of Hess '754 and in further view of Wessely U.S. Patent 4,055,133. Reconsideration in view of the following remarks is respectfully requested.

For the Examiner's convenience, claim 20 is set forth below with supporting disclosure reference numerals inserted in parenthesis to facilitate review.

> *20. A method for making a serviceable muffler (20) comprising providing a muffler body (26) for containing an element (28) requiring servicing, said body (26) having an open end (30) allowing access to said element (28) for removal and replacement of said element (28) through said open end (30), said body (26) extending axially along an axis (50) between first and second distally opposite axial ends (52, 54), said first axial end (52) being said open end (30), said body (26) having an axially extending sidewall (92), providing an apertured flange (44) having an outer border for cooperating with said*

open end (30) of said body (26), and having an inner border defined by an aperture (48) therethrough, wherein said element (28) in said body (26) is removed and replaced through said aperture (48), said apertured flange (44) having an axially extending sidewall (94), and comprising inserting said apertured flange (44) into said body (26), with said sidewalls (92, 94) in abutting relation, and flaring (96, 100) at least one of said sidewalls (92, 94) to a flared rounded configuration having a convex curvature facing in a first axial direction (rightwardly in Figs. 4-10) away from said second axial end (54) of said body (26), for receiving an end plate (34) clamped thereto, wherein said sidewall (92) of said body (26) has a pre-flared laterally extending portion (96) at a first end (98), said sidewall (94) of said apertured flange (44) has a pre-flared laterally extending portion (100) at a first end (102) extending laterally beyond said first end (98) of said sidewall (92) of said body (26), and comprising engaging first end (102) of said sidewall (94) of said apertured flange (44) with a mandrel (104) having a curved engagement surface (106), and moving said mandrel laterally inwardly (108) toward said body (26) to further flare and curl said sidewall (94) of said apertured flange (44) around said first end (98) of said sidewall (92) of said body (26), and continuing to move said mandrel (104) laterally inwardly (108) to further flare and curl of both of said sidewalls (96, 100) around said open end (30) of said body (16), wherein at the completion of said continued movement (108) of said mandrel (104), said first end (98) of said sidewall (92) of said body (26) is spaced laterally outwardly of said first

> *end (104) of said sidewall (94) of said apertured flange (44) by a lateral gap (110, Fig. 8) therebetween, and comprising engaging said curled and flared sidewall (100) of said apertured flange (44) with a second mandrel (112, Fig. 9), and moving said second mandrel (112) laterally inwardly (114) to close said lateral gap (110) and move said first end (98) of said sidewall (92) of said body (26) laterally into engagement with said first end (102) of said sidewall (94) of said apertured flange (44).*

Claim 20 requires that, at the completion of the noted continued movement (108, Fig. 8) of the mandrel (104), the first end (98) of the sidewall (92) of the body (26) is spaced laterally outwardly of the first end (102) of the sidewall (94) of the apertured flange (44) by a lateral gap (110, Fig. 8) therebetween, and further requires engaging the curled and flared sidewall (100) of the apertured flange (44) with a second mandrel (112, Fig. 9), and moving the second mandrel (112) laterally inwardly (114) to close the lateral gap (110) and move the first end (98) of the sidewall (92) of the body (26) laterally into engagement with the first end (102) of the sidewall (94) of the apertured flange (44).

In rejecting claim 20, the Examiner has applied Wessely '133 in the Office Action at page 11, lines 4+, and proposes the second mandrel at 20 moving laterally inwardly to close the lateral gap. In response, it is respectfully noted that this does not satisfy the claim limitations because of the following. Mandrel 20 in Fig. 8 of Wessely '133 moves laterally outwardly, not inwardly as required by claim 20. Furthermore, mandrel 20 in Wessely '133 engages the flat sidewall of item 4, not the curled and flared sidewall thereof.

Consideration and allowance of claim 20 is respectfully requested.

Newly added claim 24 is presented for consideration and combines designated features of original claims 1, 4, 5, 6, 7, 21 in a combination which is believed allowable. For the Examiner's convenience, claim 24 is set forth below with supporting disclosure reference numerals inserted in parenthesis to facilitate review.

> *24. A serviceable muffler (20) comprising a muffler body (26) for containing an element (28) requiring servicing, said body (26) having an open end (30) allowing access to said element (28) for removal and replacement of said element (28) through said open end (30), an end plate (34) closing said body (26) at said open end (30), at least one of said end plate (34) and said open end (30) of said body (26) having a flared rounded portion (40, 42), a clamp (36) releasably clamping said end plate (34) to said open end (30) to close said body (26) and being releasable to permit removal of said end plate (34) from said open end (30) of said body (26) for gaining access to said element (28), each of said end plate (34) and said open end (30) of said body (26) has a flared rounded portion (40, 42), and further comprising in combination an apertured flange (44) having an outer border with a flared rounded portion (46) complemental to the flared rounded portion (40, 42) of each of said end plate (34) and said open end (30) of said body (26), said apertured flange (44) having an inner border defined by an aperture (48) therethrough, wherein said element (28) in said body (26) is removed and replaced through said aperture (48), wherein said body (26) extends axially along an axis (50) between first and second axially distally opposite axial ends (52, 54), said first axial end (52) being said open end (30), and wherein said flared rounded portions (40, 42, 46) of said end plate (34) and of said open end (30) of said body (26) and of said apertured*

flange (44) are all axially aligned, and wherein said flared rounded portion (46) of said apertured flange (44) is located axially between said flared rounded portion (46) of said end plate (34) and said flared rounded portion (42) of said open end (30) of said body (26), wherein said flared rounded portion (46) of said apertured flange (44) has a first arcuate surface (56) facing in a first axial direction (rightwardly in Figs. 9, 10) away from said second axial end (54) of said body (26), and has a second arcuate surface (58) facing in a second axial direction (leftwardly in Figs. 9, 10) toward said second axial end (54) of said body (26), said second axial direction being opposite to said first axial direction, and wherein said first arcuate surface (56) of said flared rounded portion (46) of said apertured flange (44) engages said flared rounded portion (40) of said end plate (34), and said second arcuate surface (58) of said flared rounded portion (46) of said apertured flange (44) engages said flared rounded portion (42) of said open end (30) of said body (26), wherein said open end (30) of said body (26) has a first section (60) extending axially along said first axial direction (rightwardly in Figs. 9, 10) to said flared rounded portion (42) of said open end (30) of said body (26), and has a second section (62) extending axially along said second axial direction (leftwardly in Figs. 9, 10) from said flared rounded portion (42) of said open end (30) of said body (26), said second section (62) having a terminating end (64) spaced laterally outwardly of said first section (60) by a pocket (66) of given lateral width, wherein said flared rounded portion (46) of said apertured flange (44) is a first rounded portion of said

> *apertured flange, and wherein said apertured flange (44) has a second rounded portion (68), and wherein said apertured flange (44) has a first section (70) extending axially along said first axial direction (rightwardly in Figs. 9, 10) to said first rounded portion (46) of said apertured flange (44), and has a second section (72) extending axially along said second axial direction (leftwardly in Figs. 9, 10) from said first rounded portion (46) of said apertured flange (44) to said second rounded portion (68) of said apertured flange (44), and has a third section (74) extending axially along said first axial direction (rightwardly in Figs. 9, 10) from said second rounded portion (68) of said apertured flange (44), and wherein said third section (74) of said apertured flange (44) extends axially into said pocket (66), said second section (72) of said apertured flange (44) being laterally outward of and engaging said second section (62) of said open end (30) of said body (26), said second section (62) of said open end (30) of said body (26) being laterally outward of and engaging said third section (74) of said apertured flange (44), said third section (74) of said apertured flange (44) being laterally outward of and engaging said first section (60) of said open end (30) of said body (26), said first section (60) of said open end (30) of said body (26) being laterally outward of and engaging said first section (70) of said apertured flange (44).*

Newly added claim 25 depends from claim 24 and is believed allowable for the reasons noted above. Furthermore, claim 25 defines a subcombination which is believed allowable. Claim 25 requires that the end plate (34, Fig. 10) extend laterally inwardly from the flared rounded portion (40) of the end plate and then extends axially (50, Fig. 10) in the noted second axial direction (leftwardly in Fig. 10) along an axial extension section, which axial extension section of end plate 34 is laterally spaced inwardly from the noted first section (70) of the apertured flange (44) by a lateral gap therebetween, as illustrated in Fig. 10.

It is believed that this application is in condition for allowance with claims 5, 8, 20, 24, 25, and such action is earnestly solicited.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

Michael E. Taken
Michael E. Taken
(Reg. No. 28,120)

100 East Wisconsin Avenue, Suite 1100
Milwaukee, Wisconsin 53202
(414) 271-7590